CLINICAL EXPERIENCES WITH A NEW SINGLE-SIDED ADHERENT SILICONE DRESSING (TEXA SILICONE DRESSING®) FOR THE CARE OF SUPERFICIAL, ACUTE AND CHRONIC WOUNDS AND FOR 'SKIN@RISK'.

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1. ABSTRACT

This article is the result of a multicentre case study. The intention of this study was to translate the properties of the Texa Silicone Dressing into practical benefits for both the patient and the care provider.
The clinical results were collected using a prescribed data list. Seventeen (17) centres took part in this observational study: 11 centres in Flanders and 6 centres in Wallonia. The patients were recruited from 13 hospitals and 4 residential and care centres.
In addition to the contact details of the investigator, general patient data was registered, including identification, anamnesis, Norton Scale score (in cases of decubitus), Payne-Martin Scale score (in cases of skin tears) and nutritional status.
Each investigator was permitted to decide for him- or herself which type of wound to treat with the dressing. Ultimately, the care of various acute and chronic wounds was started. A photo was taken both at the start-up and at each change of dressing.
Clinical observations were carefully noted in order to be able to follow the evolution of the wounds and the wound environment.
Finally, the dressing was also evaluated for its qualities.

2. INTRODUCTION

Professional wound care includes, among other things, the systematic observation of wound evolution. At the time of each change of dressing, the wound care policy is adapted according to the changes in the wound aspect. Wounds are always assessed on the basis of the TIME wound analysis model. The assessment of the wound in all of its aspects provides an indication for the determination of the final choice of dressing. Especially during the epithelialisation phase, the migration of epithelial cells must be able to proceed undisturbed. It is important not to cause any tissue damage while changing the dressing. Adherent bandages cause trauma and pain and increase the risk of bacterial overload.
The industry has always concentrated on the development of atraumatic adhesive and non-adhesive dressings. In this observational study, we will verify whether the
Texa Silicone Dressing satisfies these conditions.
The cleaning and rinsing of the wound are very important for maintaining the bacterial balance and supporting optimal wound healing. Antibacterial topical medications, such as Povidone-iodine, are often applied in cases of critical colonisation and in cases where medical signs of wound infection are present. However, antiseptics may not be combined with just any primary dressing. Studies have shown that the Texa Silicone Dressing ® may be safely combined with antiseptics. Therefore, during the care of a wound with significant clinical signs of infection, combining this silicone dressing with antiseptics is essential.
When maintaining a moderately moist wound environment, the choice of the wound dressing plays a critical role. Texa Silicone Dressing ® can be utilised on dry wounds or on wounds with limited exudate. If necessary, an extra secondary dressing may be used.

In addition to intense attention for local wound care, we must also take into account the fact that various underlying factors can influence wound healing. The oral transmission of lifestyle advice and the adequate treatment of the underlying pathology are of great importance when managing a course of wound healing.
Wound treatment must always be directed at the treatment of the causal factors (e.g., adapted compression therapy in cases of chronic venous insufficiency, regulation of glycaemia, prevention of pressure and improvement of the arterial supply in diabetic foot wounds, neutralisation of pressure in cases of decubitus, surgical treatment of ischaemia due to arterial occlusion etc.).

Skin@Risk:

Skin@Risk is a frequently occurring problem in residential care centres, nursing homes, hospitals and geriatric wards. This was recently demonstrated by incidence data collected from patients with skin tears in hospitals and residential care centres. In the short-term Skin@Risk can be one of the causes of a skin tear or another skin injury, under the influence of external factors. Possible external factors:

- Mechanical (bumping against a hard object)
- Scratching itchy skin (for example, leg ulcers) >>> scratch lesions
- Moisture >>> intertrigo
- Chafing or rubbing (for example, due to use of external prostheses or wheel chair)

Skin tears occur in approximately 5% of the nursing home population and these wounds can arise at any time. The healing time for a skin tear is, on average, approximately 2 to 3 weeks and is extremely uncomfortable for the patient. Of course, patients can have several skin tears at various locations, such as the arms, legs, …
The risk of having a Skin@Risk is often underestimated and it is not always treated as it should be. In the best case scenario, creams or ointments are used preventively to keep the skin supple. Often, all kinds of remedies are applied which do not produce the intended result, namely substantial support of the skin and the abatement of rubbing.
No randomised studies of the preventative approach to skin tears exist. Information and prevention programmes could possibly reduce the incidence by 50% in geriatric wards.

The following measures are described:
- Identify patients at risk.
- Implement a prevention protocol.
- Inform the patient, staff and family about the procedures for treating and caring for risk patients.
- Ensure a safe environment (furniture, adequate lighting …).
- Protect the limbs (e.g., long stockings, soft materials on bed and wheel chair, support hanging limbs with cushions, …).
- Manipulate the patient carefully during transfers, turning…
- Try to keep the skin moist. Use hydrating creams.
- Avoid the use of dressings or bandages that are too strongly adherent. Choose instead dressings with low adherence (e.g., Silicone dressings).
- Provide for good nutrition and hydration.

In spite of all of these measures described above, a very high incidence of skin tears exists among patients and residents with fragile skin (Skin@Risk).

3. TEXA SILICONE DRESSING ®: A NEW SILICONE DRESSING

Texa Silicone Dressing is a silky soft, single-sided adherent skin and wound dressing with self-adherent properties. Texa Silicone Dressing is bi-elastic- which means it stretches in both the length and in the width -, repositionable and has rounded corners for staying in place even better. Texa Silicone Dressing is permeable to the air and supports wound healing according to the moist wound healing principle. Texa Silicone Dressing can be applied, in combination with absorbent secondary dressings, on moderately moist wounds. Texa Silicone Dressings consist of supple, Lycra fibres covered with a soft layer of silicone. Texa Silicone Dressing does not absorb any wound exudate.
ReSkin Silicone Skin Technology is a patented, soft, self-adherent silicone adherent layer that is harmoniously incorporated into the Texa Silicone Dressing. ReSkin Silicone Skin Technology prevents adhesion of the dressing to the wound and insures a minimum of trauma during the removal of the dressing, even in difficult circumstances when the exudate has dried up. On the skin, ReSkin Silicone Skin Technology ensures soft yet perfect adhesion without damaging the epidermis or causing pain while changing dressings. Thanks to the ReSkin Silicone Skin Technology, Texa Silicone Dressings can be used preventively on Skin@Risk as support for fragile skin. Texa Silicone Dressings can also be used for the care of superficial wounds where patient comfort is a priority (painless removal of the dressing in combination with support for wound healing).

Use as support for fragile skin (Skin@Risk):

The soft, silicone layer in combination with the bi-elastic top layer ensures the perfect support for fragile skin. The open pores also makes the dressing permeable to the air and allows transpiration to evaporate directly so that maceration is prevented. The dressing can be repositioned which means that, should it become necessary to reposition the dressing, this can be done easily and with perfect results, without a loss of adherence. The dressing may remain in place for several days and can, if necessary, be removed painlessly and without trauma.

Use in wound care:

Texa Silicone Dressing can be utilised on dry to moderately moist wounds. The soft silicone layer completely shields the wound edges. As a result, the wound exudate does not come into contact with the surrounding skin, which prevents maceration. The open pores allow any wound exudate that may be present to migrate vertically to a secondary, absorbent dressing. In order to prevent maceration of the wound edges, this dressing must be changed according to the condition of the wound and the amount of exudate present. Due to the integrity of the Texa Silicone Dressing and the properties of the soft, silicone layer, the Texa Silicone Dressing can remain in place for several days and can, when necessary, be removed painlessly and without trauma.

Texa Silicone Dressing can be used preventively on Skin@Risk as support for fragile skin (reduction of the risk of skin tears) but can also be used for the abatement/reduction of the consequences of shearing forces among bedridden patients, wheel chair- and prosthesis users so that the risk of the development of skin tears is significantly reduced.
Texa Silicone Dressing is suitable for use on a number of non-exuding to slightly exuding wounds, including skin tears (shear wounds), scratch wounds and abrasions, surgical incisions, superficial 1st and closed superficial 2nd degree burn wounds, blisters, shear and friction wounds, fixation of transplants, diabetic ulcers, venous and arterial ulcers, superficial decubitus wounds, intertrigo, eczema, ….
The Texa Silicone Dressing can remain in place for several days, depending on the condition of the wound (the wound exudate must be able to easily pass through the dressing and the holes must remain open); however, the absorbent dressing on top of the Texa Silicone

Dressing must be changed when saturated. If used preventively for the relief of shearing forces or in cases of Skin@Risk, the dressing must be changed a minimum of 1 time per week. Texa Silicone Dressing is intended for single use only. In the event of an unexpected change in the condition of the wound, a doctor or nurse must be consulted.

4. OBSERVATIONAL STUDY

The investigators were asked to perform wound care on 3 patients with Skin@Risk, a skin tear or a wound with slight, superficial exudate for a period of 3 weeks using the Texa Silicone Dressing.
For this study, Skin@Risk patients were defined as patients who in recent months have had a skin tear or another recently healed wound that has now healed but is in fact still at risk for recurrence.
The patients' consent to participate in the case study was requested beforehand.
At the start of the study, information related to the product and the objective of the study was provided.
Separate forms for the registration of the observations related to wounds and to Skin@Risk were made available.
In addition, the investigators were asked to take clear, digital photos at the start and at the end of the study and at each change of dressing.

5. CLINICAL OBSERVATIONS:

In total 62 wounds were studied, 51 of which were acute and 11 of which were chronic.
Besides these, 7 patients with Skin@Risk were also treated.
The patient group consisted of 46% men and 54% women. The average age was 82 years.
The wounds were cleaned beforehand with a physiological solution; an antiseptic was used if necessary.

Fig. 1: Type of wound

Acute Wounds: 51

- 43 skin tears
  - 19 skin tears, Category 1
  - 16 skin tears, Category 2
  - 8 skin tears, Category 3
- 1 radioepidermitis (Grade 3)
- 4 post-operative wounds
  - 1 skin graft
  - 1 donor site for skin graft
  - 1 post-operative wound after finger trauma
  - 1 post-operative wound
- 1 post-operative cicatrix
- 2 cases of intertrigo

Chronic Wounds: 11

- 5 decubitus, Category 2
- 4 venous ulcers
- 2 mixed arterial-venous ulcers

Skin@Risk: 7 cases

A score was registered as an answer to a series of questions concerning a number of product characteristics.

1. Pain during dressing change: The **average VAS score** registered during the use of the dressing **was 1**. (0=no pain / 10=very severe pain)
2. **The evolution of the wound was improved or remained the same in 82% of the cases.**
3. **The evolution of the wound edges was found to be 87% positive.**
4. **In 80% of the cases, the evolution of the surrounding skin showed an improvement or remained the same.**
5. **The average score for the opening of the dressing was registered as easy (score 4)**; scale from 1=extremely difficult to 5=extremely easy.
6. Likewise, **an average score of 4 was registered for the removal of the liner.**
7. **The application of the dressing was experienced as extremely easy, as shown by the average score of 4.5.**
8. **The cutting of the dressing also proved to be no problem. For this an average score of 4.5 was given.**
9. **The dressing can also be repositioned easily (average score: 4).**
10. **Finally, hardly any problems were registered during the removal of the dressing. Here, too, an average score of 4 was registered.**

The investigators registered the patients' comments. In their reports, they also described their experiences and recorded their comments while using the Texa Silicone Dressing.

Positive evaluations:

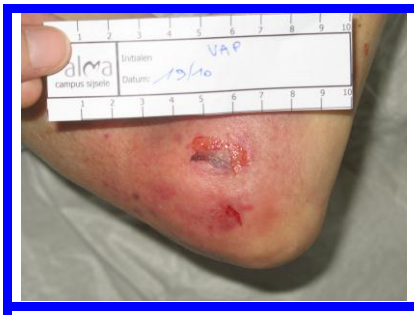
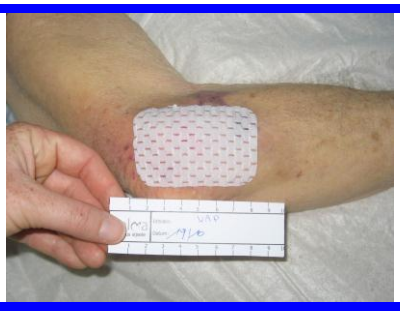
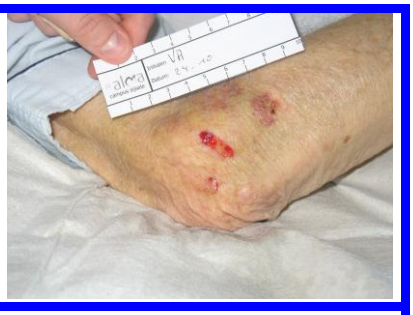
- easy to apply
- the dressing can easily be cut to the size of the wound
- the dressing remained in place for an average of 3 to 7 days without shifting or rolling up
- experienced as pleasant by the patient; no pain problems related to the dressing were reported
- it is less easy for confused patients to remove the dressing themselves
- effective and secure fixation
- good indication for difficult areas (e.g., head, ear, fingers, groin, armpit, ...)
- extremely good protection against possible trauma (wheel chair, support stockings, ...)
- skin-friendly: no stripping or irritation when removing the dressing
- if there is light or limited wound exudate, the evolution of wound healing is good

Points of particular interest:

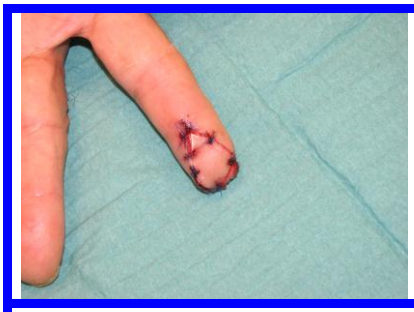
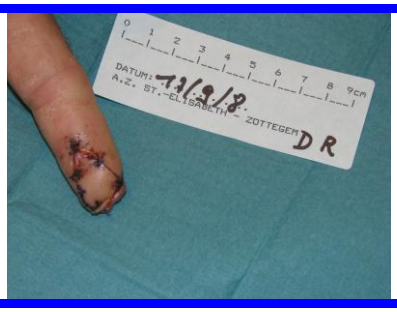
- Preferably not to be used in cases with bloody or strongly viscous wound exudate; most of the exudate remains under the dressing despite the perforations in the dressing.
- In dry wounds, a scab may form under the dressing.
- Preferably not to be combined with ointment, in order to prevent maceration. Furthermore, ointments reduce the adherence of the dressing.
- The removal of the liner requires some experience in wound care; the dressing adheres slightly too much to the liner.
- In cases of extremely fragile skin, the skin must be supported when removing the dressing.
- The dressing is not transparent, which means that the wound and the wound environment cannot be observed without removing the dressing.

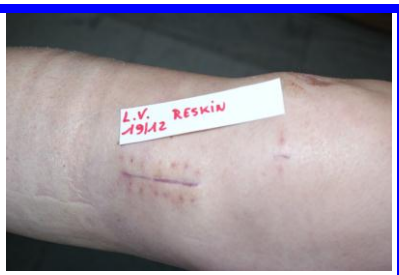
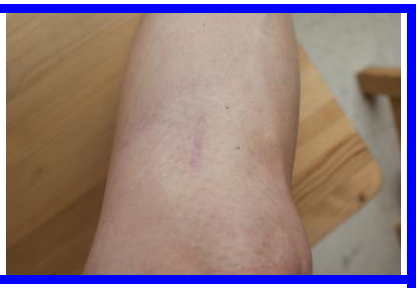
6. AN OVERVIEW OF SOME CASES:

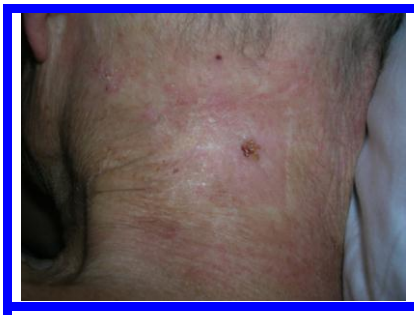
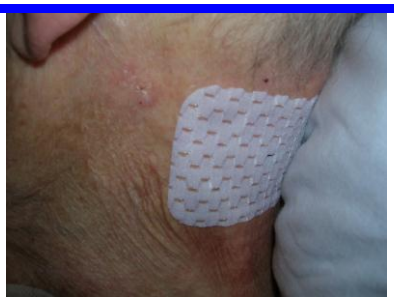
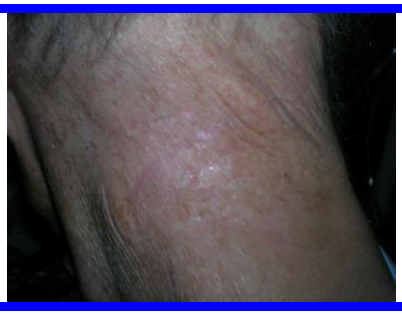
1. Acute wounds

		
Skin tear r-elbow	A Texa Silicone Dressing has been applied	Result after 5 days

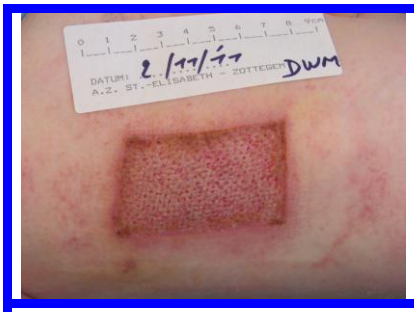
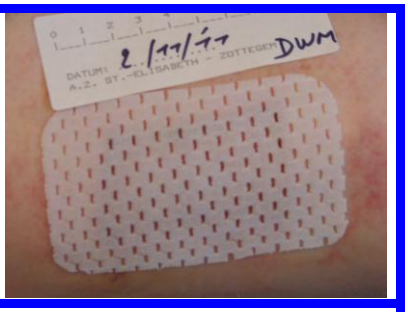
		
06/10: Skin tear r-hand. A Texa Silicone Dressing has been applied	10/10: Significant improvement after 4 days	30/10: Full re-epithelialisation

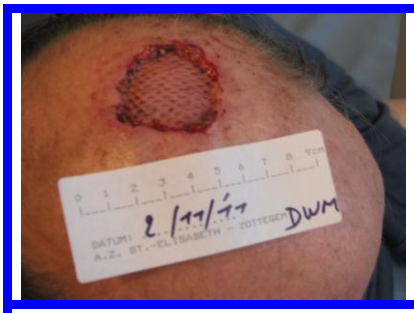
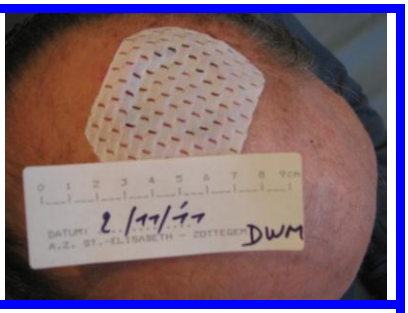
		
10/09: day 2 post-surgery: full-thickness graft after finger trauma.	Application of a Texa Silicone Dressing	17/09: Dressing change after 7 days

		
11/12: day 9 post-surgery	19/12: result after 8 days	Follow-up after 4 months

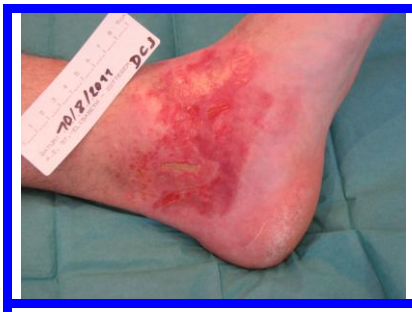
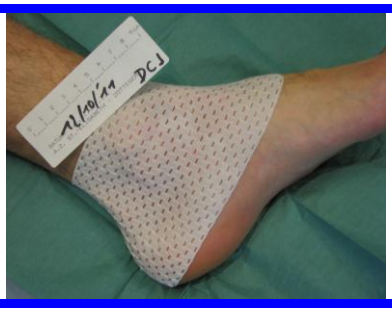
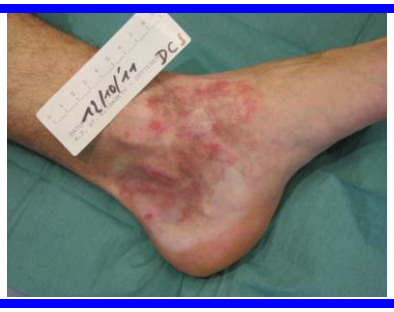
		
22/11: irradiation wound (radio-epidermitis).	22/11: application of a Texa Silicone Dressing	29/11: result after 7 days

A few other indications:

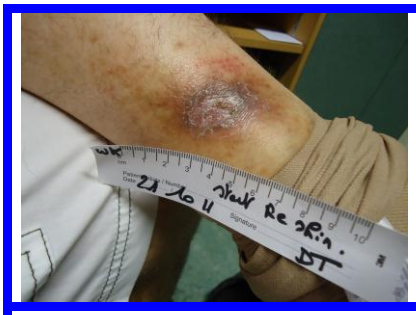
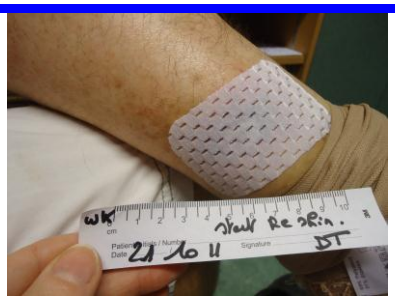
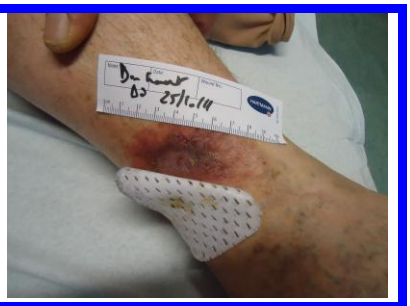
	
Post-surgery: donor site	Application of the dressing

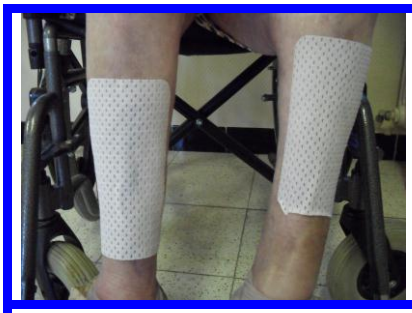
	
Skin graft on the skull	Application of the dressing

2. Chronic wounds:

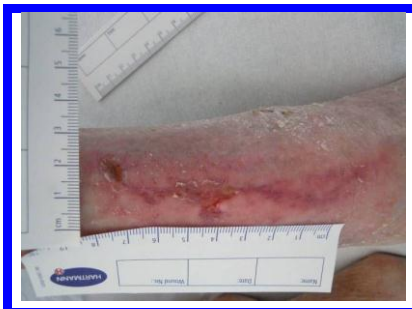
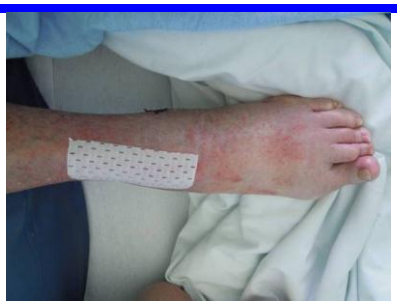
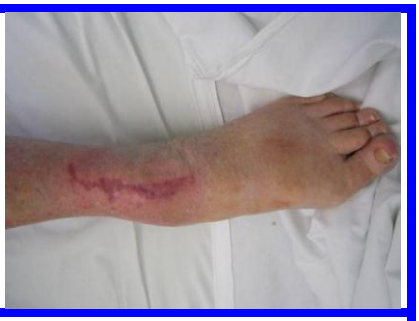
		
Venous ulcer: irritation due to excess of wound fluid	Texa Silicone Dressing is easy to apply on difficult to dress area	Result after 2 monts

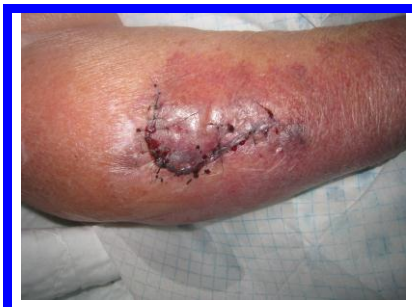
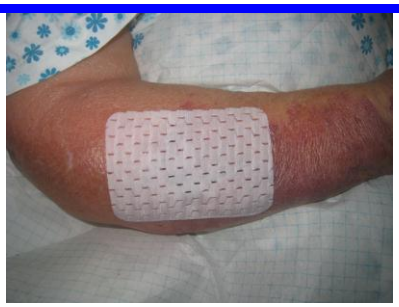
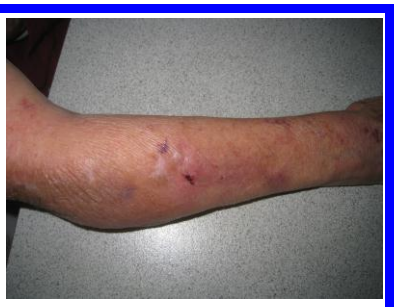
3. Skin@Risk:

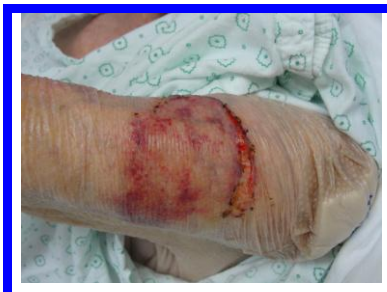
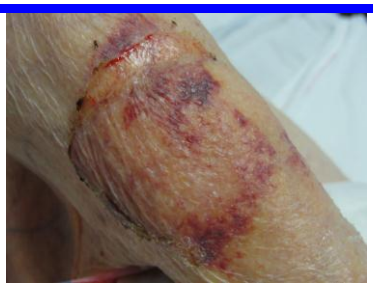
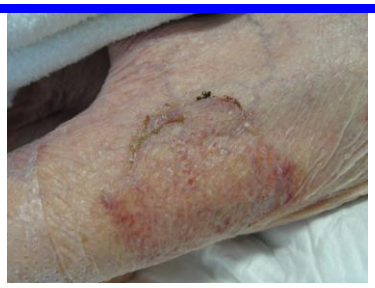
		
Scar after the healing of a chronic venous ulcer	Prevention against external trauma by applying therapeutic elastic stockings	Texa Silicone Dressing stays very well in place

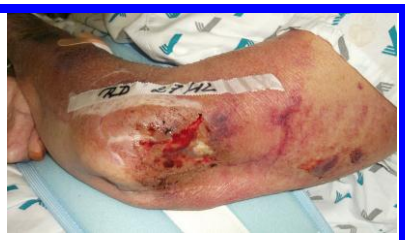

Prevention and care of skin tears when fragile skin with elderly people

Some cases related to the care of skin tears:

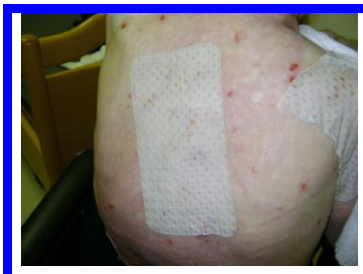
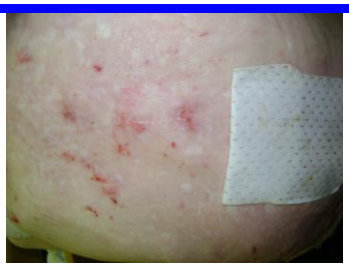
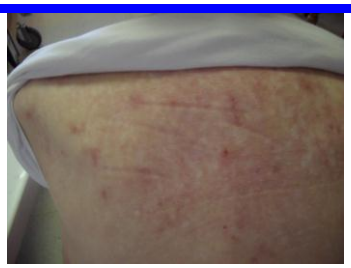
		
Skin tear St Thérèse Bastogne: 2/2	6/2: easy to apply	13/2 Result after 11 days

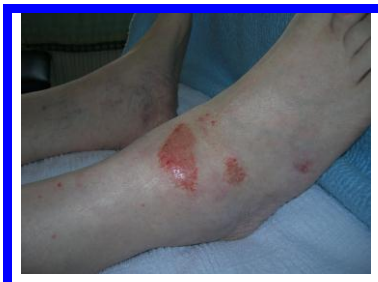
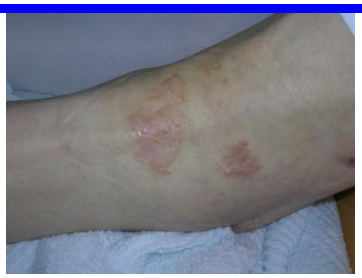
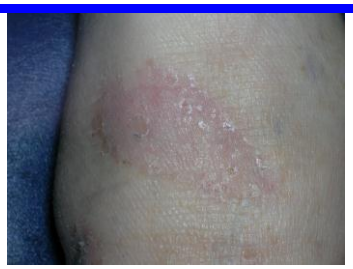
		
Skin tear Middelheim: 15/12	Easy to apply	Result on 10/1

		
Skin tear UZ Leuven: 12/10	17/10	21/10

		
Skin tear CHU Chenée: 9/12	27/12	9/1

Some other indications:

		
Scratch lesions WZC. Clep Alveringem 19/10	1/11	13/11

		
Superficial burn Citadelle Liège 13/12	17/12	22/12

7. CONCLUSION:

In this article we have been able to provide an overview of the various aspects of wound care with the Texa Silicone Dressing.

The investigators were left with a predominantly positive impression as a result of their use of the Texa Silicone Dressing.

Applications of the Texa Silicone Dressing appear to be cost-effective because the dressing can remain in place for several days at a time and because it works prophylactically by preventing wounds.

This observational study confirms that this new Texa Silicone Dressing is a good alternative for the treatment of acute and chronic superficial wounds and of skin@risk. However, randomised studies are needed in order to validate these observations.